

results of MILAST

BLASTP 2.2.8 [Jan-05-2004]

Reference:

Altschul, Stephon F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1079122645-18035-203521758519.BLASTQ3

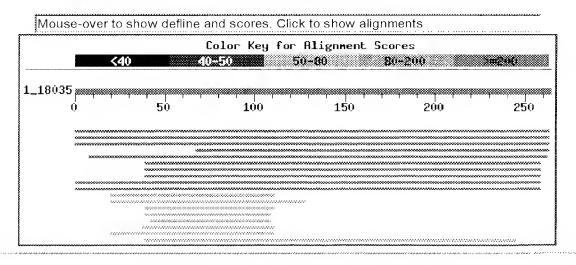
Query=

(264 letters)

If you have any problems or questions with the results of this search please refer to the ${\tt BLAST\ FAQs}$

Taxonomy reports

<u>Distribution of 1058 Blast Hits on the Query Sequence</u>



Sequences producing significant alignments:		Score (bits)		
gi 13128972 rcf NP_076932.1 gi 38049424 rcf XP_283054.2 gi 34863397 rcf XP_345653.1	collectin sub-family member 11 collectin sub-family member 11 similar to hypothetical protei	<u>812</u> 736 719	0.0	

```
g1|40548420|ref|NP 954705.1| collectin sub-family member 11...
                                                                  609
                                                                        e-173
gi[33417124]gb[AAH56052.1] Colec11-prov protein [Xenopus la...
                                                                        e-161 👯
                                                                  569
                                                                        9e-64
g1|27718901|ref|XP 235330.1| similar to collectin liver 1; ...
                                                                  246
                                                                        4e-63
gi|5453619|ref|NP 006429.1| collectin sub-family member 10;...
                                                                  244
                                                                        le-61
                                                                  239
gi|37183194|ab|AAQ89397.1| COLEC10 [Homo sapiens]
                                                                        3e-60
gi[27734138|ref[NP 775598.1] collectin liver 1; collectin-L...
                                                                  234
                                                                        6e-60
gr[27530341|dbj[BAC53954.1] collectin-L1 [Mus musculus]
                                                                  233
                                                                        3e-13
q1|7656989|ref|NP 056534.1| collagen, type V, alpha 3 prepr...
                                                                  79
                                                                  77
q1|9453886|db7|BAB03287_11 pro-alpha 1 type V/XI collagen [...
                                                                        1e-12
                                                                  __77
                                                                        le-12
q1|13994280|ref|NP 114117.1| Clq and tumor necrosis factor ...
                                                                  74
gi[13560506[qb]AAK30079.1] collagen-like protein B [Strepto...
                                                                        6e-12
gi|11096157|gb|AAG30218.1| collagen-like surface protein [S...
                                                                  74
                                                                        6e-12
gi|11096147|gb|AAG30213.1| collagen-like surface protein [S...
                                                                   74
                                                                        1e-11
                                                                  73
                                                                        1e-11
qi|841122|qb|AAA67751.1| putative collagen alpha-2 (XI) cha...
g1|6753482|ref|NP 034056.1| procollagen, type XI, alpha 2 [...
                                                                   7.3
                                                                        1e-11
gi|11096159|gb|AAG30219.1| collagen-like surface protein [S...
                                                                  7.3
                                                                        le-11
                                                                  7.3
                                                                        le-11 💹
gi|30316381|sp|Q64739|CA28 MOUSE | Collagen alpha 2(XI) chain...
                                                                  <u> 73</u>
                                                                        le-11
gi|34852201|ref|MP 215342.2| similar to Collagen alpha 2(XI...
                                                                  73
gi|43221771|gb|EAC76447.1| unknown [environmental sequence]
                                                                        2e-11
gi|31239123|ref|XP 319975.1| ENSANGP00000016783 [Anopheles ...
                                                                   72
                                                                        3e-11
                                                                  7.1
q1|9632525|ref|NP 049519.1| putative tail fiber protein [Ba...
                                                                        5e-11
                                                                        5e-11
q1|29549|emb|CAA68698.1| unnamed protein product [Homo sapi...
                                                                  '7 ]
                                                                  __7_1
                                                                        5e-11
gi|6759903|qb|AAF28099.1; alpha 1 (V) collagen [Gallus gallus]
                                                                  71
                                                                        5e-11 👪
qi|28703797|gb|AAH47305.1| COL4A1 protein [Homo sapiens]
qi|12314281|emb|CAC12153.1| bA472K17.2 (collagen type IV al...
                                                                  71
                                                                        5e-11
                                                                  _71
                                                                        5e-11
qi|7656985|ref|MP 001836.1| alpha 1 type IV collagen prepro...
                                                                  71
                                                                        5e-11
qi|7649887|dbj|BAA94165.1| tail fiber protein [Escherichia ...
                                                                  5e-11
qi|19848250|qb|7VL99382.1| collagen IV alpha 1 chain [Anoph...
                                                                  71
                                                                        5e-11
gi|225874|prf||1402236A collagen alpha1(IV)
                                                                        5e-11
                                                                  7.1
qi|1173848|qb|AAB410<u>74.1|</u> type V collagen
                                                                  71
                                                                        6e-11
gi|115313|sp<u>|P20908|CA15 HUMAN</u> Collagen alpha 1(V) chain pr...
gi|1260669|pir||CGHULV collagen alpha I(V) chain precursor ...
                                                                  7 L
                                                                        6e-11
                                                                  71
                                                                        6e-11
gi|16554579|ref|NP 000084.2| alpha 1 type V collagen prepro...
                                                                        6e-11
gi|38014150|gb|AAH08760.3| COL5Al protein [Homo sapiens]
                                                                  7 1.
                                                                  7.1
                                                                        8e-11 💹
q1[6680958|ref[NP 031755.1] procollagen, type XI, alpha 1; ...
g1|2119157|pir||JX0369 collagen alpha 1(XIX) chain precurso...
                                                                  __70
                                                                        1e-10
                                                                        1e-10 ...
                                                                  70
gi | 23468285 | qb | AAH38308.1 | Clqtnf7 protein [Mus musculus]
                                                                        1e-10 📖
gi[8393173|ref[NP 058615.1] procollagen, type V, alpha 3; P...
                                                                  7.0
                                                                  <u>_7</u>0
                                                                        1e-10
ga | 34878304 | ref | XP 223507 22 | similar to Clqtnf7 protein [Ra...
                                                                        1e-10
q1|10231667|ref|NP 001849.1| alpha 1 type XIX collagen prec...
                                                                  7 ()
                                                                  __70
                                                                        1e-10
91/30425140/ref/NP 780634.11 Clq and tumor necrosis factor ...
                                                                        le-10 💹
                                                                  .<u>70</u>
gi[392352]gb[AAA36358,1] collagen
                                                                        1e-10 👪
qi|183387|qb|AAA58468.1| fibril-associated collagen
                                                                  ...70
                                                                  __7.0
                                                                        1e-10
gi|624871|dbj|BAA07368.1| al(XIX) collagen chain precursor ...
                                                                  7.0
                                                                        2e-10
gi|44637832|gb|EAK65704.1] unknown [environmental sequence]
                                                                        2e-10
gi|476846|pir||745748 collagen alpha 1(VII) chain - mouse (...
                                                                  7.0
                                                                        2e-10
                                                                  7.0
gi|7656987|ref|NP 056549.1| procollagen, type V, alpha 1; p...
                                                                  . 70
                                                                        2e-10
qi|283868|pir||828791 collagen alpha 1(XI) chain - chicken ...
                                                                        2e-10 💹
                                                                  7.0
qi[6680972]ref[NP 031764.1] procollagen, type VII, alpha 1 ...
```

		389588
<u>gi 34859869 ref XP 342327.1 </u> procollagen type XI alpha 1 [R	6.9	2e-10
gi[30354436[qb]AAH52161.1] Procollagen, type XI, alpha 1 [M	69	2e-10
<u>q1 11120710 ref NP 068528.1 </u> collagen, type V, alpha 3; pro <u>q1 115347 sp P27393 CA24 ASCSU</u> Collagen alpha 2(IV) chain p	<u>69</u>	2e-10
gi[3172000]emb[CAA06511.1] collagen alpha l (XI) [Rattus no	<u>69</u>	2e 10
gill1096145 qb AAG30212.1 collagen-like surface protein [S gill15326 sp:P20909 CA1B_RAT COLLAGEN ALPHA 1(XI) CHAIN >gi	<u>69</u> 69	2e-10 2e-10
gi 29566025 ref NP 817595.1 gp4 [Mycobacteriophage Bxz2] >	6.9	3e-10
q:\\\\30145696\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<u>69</u> 69	3e 10 4e-10
gi 11096151 gb AAG30215.1 collagen-like surface protein [S gi 423283 pir 533603 surfactant protein D - bovine	69	4e-10
g1 4502961 ref NP 000085.1 alpha 1 type VII collagen precu	69	4e-10 🗱
qi 44173973 qb EAH52456.1 unknown [environmental sequence]	<u>69</u>	4e 10
<u>q1 2137076 p1r 148103</u> type VII collagen - Chinese hamster <u>q1 31217934 ref MP 316546.1 </u> ENSANGP00000010005 [Anopheles	<u>69</u>	4c-10 5e-10
gi 37722541 gb AA006817.1 asymmetric acetylcholinesterase	68	7e-10
q1 37722545 gb AAO06819.1 asymmetric acetylcholinesterase	68	7e-10 💹
<pre>gi 7239259 gb AAF43197.1 acetylcholinesterase collagen-lik</pre>	6.8	7e-10
qi 18105030 rcf[NP_536805.1 acetylcholinesterase collagen	<u>88 </u>	7e-10
gi 180715 gb AAA52034.1 alpha-2 type XI collagen	<u>88</u>	7e-10
gi 18201917 ref NP 542411.1 alpha 2 type XI collagen isofo gi 1360671 pir CGHU2E collagen alpha 2(XI) chain precursor	<u>- 68</u> - 68	7e-10 🞎 7e 10
gi 1000747 gb AAC50215.1 Pro-a2(XI)	68	7e-10 💹
qi 18201919 ref NP 542412.1 alpha 2 type XI collagen isofo	68	70-10
gi 37722539 qb AA006816.1 asymmetric acetylcholinesterase	68	70-10
gi 18105022 ref NP_536801.1 acetylcholinesterase collagen	68	7e-10
gi 18105028 ref NP_536804.1 acetylcholinesterase collagen	58	7e-10
<pre>gi 12643942 sp Q9Y215 COLQ_HUMAN Acetylcholinesterase colla</pre>	68	7e-10
gi 13432104 sp P13942 CA2B_HUMAN Collagen_alpha 2(XI) chain	68	7e-10
<u>qi 3820987 emb CAA20240.1 </u> dJ1033B10.12 (collagen, type XI,	<u>68</u>	7e-10
<pre>gi 18201915 ref NP 542410.1 alpha 2 type XI collagen isofo</pre>	66	7e-10
<u>gi 1000746 gb AAC50214.1 </u> Pro-a2(XI) >gi 1584719 prf 21233	68	7e-10
gi 37722543 gb AA006818.1 asymmetric acetylcholinesterase	<u> 68</u>	7e-10
gu 18105024 rcf NP 536802.1 acetylcholinesterase collagen	<u> </u>	999999
gi 1000745 gb AAC50213.1 Pro-a2(XI)	68	7e-10 7e-10
gi 18105016 ref NP 005668.2 acetylcholinesterase collagen qi 18105018 ref NP 536799.1 acetylcholinesterase collagen	<u>68</u> 68	7e-10
<pre>gi 18105018 ref NP 536799.1 acetylcholinestorase collagen gi 18105020 ref NP 536800.1 acetylcholinesterase collagen</pre>	<u> 68</u>	7e-10 ****
gi[118756121gb[AAG40729.1] type IV collagen alpha 1 chain p	57	90-10
gi 18780273 ref NP_110447.2 alpha 1 type XXI collagen prec	67	9e-10 🛄
g1 19745166 ref NP 604447.1 collagen, type V, alpha 1 [Rat	_67	9e-10
gr 6165881 qb AAF04724.1 collagen type XI alpha-1 [Homo sa	67	9e-10
gi 18375522 ref NP 542197.1 alpha 1 type XI collagen isofo	67	9e-10
gi[6165882]gb[AAF94725.1] collagen type XI alpha-1 isoform gi[7441219]pir[[818893] collagen alpha 1(V) chain - hamster	<u> </u>	9e 10
gi 18375518 ref NP 001845.1 alpha 1 type XI collagen isofo	6.7	9e-10
gi 1360670 pir CGHULE collagen alpha 1(XI) chain precursor	67	9e-10
gi 33149359 gb AAO64414.1 type VII collagen [Canis familia	67	9e-10

Alignments

```
Get selected sequences
                             Select all
                                       Deselect all
🏲 >q1|13123972|ref|NP 076932.1| 👪 collectin sub-family member 11 isoform a [Homo s
                             Collectin sub-family member 11 [Homo sapiens]
 g1|12652661|qb|AAH00078.1|
                             RGNL596 [Homo sapiens]
 g1|37182003|qb|AAQ88805.1|
          Length = 271
 Score = 812 \text{ bits (1907), Expect} = 0.0
 Identities = 262/271 (96%), Positives - 262/271 (96%), Gaps = 7/271 (2%)
Query: 1
          MRGNLALVGVLISLAFLSLLPSGHPQPAGDDACSVQILVPGLKGDAGEKGDKGAPGRPGR 60
           MRGNLALVGVLISLAFLSLLPSGHPQPAGDDACSVQILVPGLKGDAGEKGDKGAPGRPGR
Sbjct: 1
          MRGNLALVGVLISLAFLSLLPSGHPQPAGDDACSVQII,VPGLKGDAGEKGDKGAPGRPGR 60
Query: 61 VCPTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPPGPNGEPGLPCKCSQLR- 119
           VGPTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPPGPNGEPGLPCECSQLR
sbjct: 61 VGPTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDTGPPGPNGEPGLPCECSQLRK 120
Query: 120 -IGEMDNQVSQHUSELKFIKNAVAGVRETESKIYLLVKEEKRYADAQLSCQGRGGTLSMP 178
            rgemdnovsoltselkfiknavagvreteskiyllvkeekryadaolscogrogtlsmp
Sbjct: 121 AIGEMDNQVSQLTSELKFIKNAVAGVRETESKIYLLVKEEKRYADAQLSCQGRGGTLSMP 180
Query: 179 KDE-MNGL · GYLAQAGLARVFIGINDLEKEGAFVYSDHSPMRTFN--RSGEPNNAYDEE 233
           KDE NGL
                    YLAQAGLARVFIGINDLEKEGAFVYSDHSPMRTFN RSGEPNNAYDEE
Sbjct: 181 KDEAANGLMAAYLAQAGLARVFIGINDLEKEGAFVYSDHSPMRTFNKWRSGEPNNAYDEE 240
Query: 234 DCVEMVASGGWNDVACHTTMYFMCEFDKENM 264
           DCVEMVASGGWNDVACHTTMYFMCEFDKENM
sbjct: 241 DCVEMVASGGWNDVACHTTMYFMCEFDKENM 271
                                 collectin sub-family member il [Mus musculus]
== >q1 | 38049424 | ref | XP | 283054.2 |
 gi|12833584|db]|EAB22581.1|
                              unnamed protein product [Mus musculus]
          Length = 272
 Score = 736 \text{ bits } (1728), \text{ Expect} = 0.0
 Identities = 242/271 (89)), Positives = 253/271 (93)), Gaps = 8/271 (2)
          MRGNLALVGVLISLAFLSILIPSCHPQPAGDDACSVQILVPGLKGDAGEKGDKGAPGRPGR 60
Query: 1
                                        +DACSVQILVPGLKGDAGEKGDKGAPGRPGR
           MR +LAL G+LISLAFLSLLPSG PQ
Sbjct: 3
          MR-DLALAGMLISLAFLSLLPSGCPQQTTEDACSVQILVPGLKGDAGEKGDKGAPGRPGR 61
Query: 61 VGPTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPPGPNGEPGLPCECSQLR- 119
           VGPTGEKGDMGDKGQKG+VGRHGKIGPIG+KGEKGDSGDIGPPGP+GEPG+PCECSQLR
Sbjct: 62 VGPTGEKGDMGDKGQKGTVGRHGKIGPIGAKGEKGDSGDIGPPGPSGEPGIPCECSQLRK 121
Query: 120 -IGEMDNQVSQLTSELKFIKNAVAGVRETESKIYLLVKEEKRYADAQLSCQGRGGTLSMP 178
            IGEMDNQV+QLT+ELKFIKNAVAGVRETESKIYLLVKEEKRYADAQLSCQ RGGTLSMP
Sbjct: 122 AIGEMDNQVTQLTTELKFIKNAVAGVRETESKIYLLVKEEKRYADAQLSCQARGGTLSMP 181
Query: 179 KDE-MNGL--GYLAQAGLARVFIGINDLEKEGAFVYSDHSPMRTFN--RSGEPNNAYDEE 233
                     YLAQAGLARVFIGINDLEKEGAFVYSD SPM+TFN RSGEPNNAYDEE
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Sbjct: 182 KDEAANGLMASYLAQAGLARVFIGINDLEKEGAFVYSDRSPMQTFNKWRSGEPNNAYDEE 241
Query: 234 DCVEMVASGGWNDVACHTTMYFMCEEDKENM 264
           DCVEMVASCGWNDVACH TMYFMCEFDKEN+
Sbjct: 242 DCVEMVASGGWNDVACHITMYFMCEFDKENL 272
🌅 >gi|34863397|ref|MP 345653.1| 👪 sımilar to hypothetical protein MGC3279 similar
           [Rattus norvegicus]
          Length = 319
 Score = 719 bits (1689), Expect = 0.0
 Identities = 239/282 (84%), Positives = 254/282 (90%), Gaps = 19/282 (6%)
         MRGNLALVGVLISLAFLSLLPSGHPQPAGDDACSVQILVPGLKGDAGEKGDKGAPGRPGR 60
          MR +LAL G+LISLAELSLLPSG PQ +DACSVQILVPGLKGD+GEKG+KGAPGRPGR
Sbjct: 39 MR-DLALAGMLISLAELSLLPSGCPQQTTEDACSVQILVPGLKGDSGEKGNKGAPGRPGR 97
Query: 61 VGPTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPPGPNGEP------ 109
          VGPTGEKGDMGDKGQKG+VGRHGKIGPIG+KGEKGDSGDIGPPGP+GEP
Sbjct: 98 VGPTGEKGDMGDKGQKGTVGRHGKIGPIGAKGEKGDSGDIGPPGPSGEPASPMPNRLLHT 157
Query: 110 GLPCECSQLR--IGEMDNQVSQLTSELKFIKNAVAGVRETESKIYLLVKEEKRYADAQLS 167
           G+PCECSOLR IGEMDNOV+OLT+E+KFIKNAVAGVRETESKIYLLVKEEKRYADAOLS
Sbjct: 158 GIPCECSQLRKAIGEMDNQVTQLTTEIKFIKNAVAGVRETESKIYLLVKEEKRYADAQLS 217
Query: 168 CQGRGGTLSMPKDE-MNGL--GYLAQAGLARVFIGINDLEKEGAFVYSDHSPMRTFN--R 222
           CQGRGGTLSMPKDE NGL YLAQAGLARVFIGINDLE+EGAFVYSD SPM+TFN R
Sbjct: 218 CQGRGGTLSMPKDEAANGLMASYLAQAGLARVELGINDLEREGAFVYSDRSPMQTFNKWR 277
Query: 223 SGEPNNAYDEEDCVEMVASGGWNDVACHTTMYFMCEFDKENM 264
           SGEPNNAYDEEDCVEMVASGGWNDVACH TMYEMCEFDKEN+
sbjct: 278 sgepnnaydeedcvemvasggwndvachitmyfmceedkenl 319
🌅 >gi|40548420|ref|MP 954705.1| 🚨 collectin sub-family member 11 isoform b [Homo s
qi|31455215;qb|AAR09951.1| Collectin sub-family member 11, isoform b [Homo sapi
          Length = 268
Score = 609 \text{ bits } (1429), \text{ Expect = } e-173
 ldentitles = 195/204 (95%), Positives = 195/204 (95%), Gaps = 7/204 (3%)
Query: 68 GDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPPGPNGEPGLPCECSQLR--IGEMDN 125
           GDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPPGPNGEPGLPCECSQLR IGEMDN
Sbjct: 65 GDMGDKGQKGSVGRHGK1GPIGSKGKKGDSGDTGPPGPNGEPGLPCECSQLRKAIGEMDN 124
Query: 126 QVSQLTSELKFIKNAVAGVRETESKIYLLVKEEKRYADAQLSCQGRGGTLSMPKDE-MNG 184
           QVSQLTSELKFIKNAVAGVRETESKIYLLVKEEKRYADAQLSCQGRGGTLSMPKDE NG
Sbjct: 125 QVSQLTSELKFIKNAVAGVRETESKIYLLVKEEKRYADAQLSCQGRGGTLSMPKDEAANG 184
Query: 185 L--GYLAQAGLARVEIGINDLEKEGAFVYSDHSPMRTFN--RSGEPNNAYDEEDCVEMVA 240
          L YLAQAGLARVFTGINDLEKEGAFVYSDHSPMRTFN RSGEPNNAYDEEDCVEMVA
Sbjct: 185 LMAAYLAQAGLARVFIGINDLEKEGAFVYSDHSPMRTFNKWRSGEPNNAYDEEDCVEMVA 244
Query: 241 SGGWNDVACHTTMYFMCEFDKENM 264
           SGGWNDVACHTTMY FMCE FDKENM
Sbjct: 245 SGGWNDVACHTTMYFMCEFDKENM 268
```

```
>q1|33417124|gb|AAH56052.1|  Colectl-prov protein [Xenopus laevis]
         Length = 271
Score = 569 bits (1336), Expect = e-161
Identities = 201/262 (76%), Positives = 223/262 (85%), Gaps = 7/262 (2%)
         GVLISLAFLSLLPSGHPQPAGDDACSVQILVPGLKGDAGEKGDKGAPGRPGRVGPTGEKG 68
Query: 9
          G +ISL FL LL SG+ Q D+ CSVQILVPGLKGDAGEKG+KGAPGRPGRVGP GEKG
          GTIISLGFLILLGSGYCQHITDETCSVQILVPGLKGDAGEKGEKGAPGRPGRVGPPGEKG 68
Sbjct: 9
Query: 69 DMGDKGQKGSVGRHCKIGPIGSKGEKGDSGDIGPPGPNGEPGLPCECSQLR--IGEMDNQ L26
          ++GDKG KGS+GRHGKIGPIGSKGEKGD G IGPPGPNGEPG+PCEC QLR +GEMD Q
Sbjct: 69 EIGDKGIKGSMGRHGKIGPIGSKGEKGDVGQIGPPGPNGEPGIPCECGQLRKAVGEMDIQ 128
Query: 127 VSQLTSELKFIKNAVAGVRETESKIYLLVKEFKRYADAQLSCQGRGGTLSMPKDE-MNGL 185
          V+QL +E+KF+KN VAGVRETE+KIYLLVKEEK+Y DAQ CQGRGGTLSMPKDE N L
Sbjct: 129 VAQLATEVKFVKNVVAGVRETETKIYLLVKEEKKYIDAQDYCQGRGGTLSMPKDEATNSL 188
Query: 186 --GYLAQAGLARVFIGINDLEKEGAFVYSDHSPMRTFN--RSGEPNNAYDEEDCVEMVAS 241
             Y+ AGL+RVFIGINDLE+EG FVYSD SPM+TFN R EPNNAYDEEDC EMV+S
Sbjct: 189 IASYINHAGLSRVFIGINDLEREGHFVYSDRSPMQTFNKWRQAEPNNAYDEEDCAEMVSS 248
Query: 242 GGWNDVACHTTMYFMCEFDKEN 263
          GGWNDV+C TMYF+CEFDKEN
Sbjct: 249 GGWNDVSChJTMYFICEFDKEN 270
📗 >gr|27718901|ref|XP 235330.1| 💹 similar to collectin liver 1; collectin-L1 [Ratt
         Length = 277
Score = 246 bits (574), Expect = 9e-64
Identities = 118/231 (51%), Positives = 167/231 (72%), Gaps = 15/231 (6%)
Query: 40 PGLKGDAGEKGDKGAPGRPGRVG---PTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGD 96
          PG KGD GE+GD G G+ G+VG P G KG++GD G +G +G K GPIG KG+KG+
Sbjat: 46 PGPKGDNGERGDTGEEGKDGKVGRQGPKGVKGELGDMGAQGDIG---KSGPLGKKGDKGE 102
Query: 97 SGDIGPPGPNGEPGLPCECSQLR--IGEMDNQVSQLTSELKFIKNAVAGVRETESKIYLL 154
           G +G PG G+ G C+C + R +G++D V++L + +KFIKN +AG+RETE K Y +
Sbjct: 103 KGLLGVPGEKGKAGTICDCGRYRKVVGQLDISVARLKTSMKFIKNVIAGIRETEEKFYYI 162
Query: 155 VKEEKRYADAQLS-CQGRGGTLSMPKDEM-NGL--GYLAQAGLARVFIGINDLEKEGAFV 210
          V+EEK Y ++ L+ C+ RGG L+MPKDE+ N L Y+A++G RVFIG+NDLEKEG +V
Sbjct: 163 VQEEKNYRES-LTHCRIRGGMLAMPKDEVVNTLIADYVAKSGFFRVFIGVNDLEKEGQYV 221
Query: 211 YSDHSPMRTFN--RSGEPNNAYDEEDCVEMVASGGWNDVACHTTMYFMCEF 259
          ++D++P++ ++ + GEP++ Y EDCVEM++SG WND CH TMYF+CEF
Sbjct: 222 FTDNTPLQNYSNWKEGEPSDPYGHEDCVEMISSGRWNDTECHLTMYFVCEF 272
```

🔲 >gi|5453619|ref|NF 006429.1| - 👪 collectin sub-family member 10; collectin liver 1

[Homo sapiens]

Length = 277

gi|5162875|dbj|BAA81747.1| **3** collectin 34 [Homo sapiens]

```
Score = 244 \text{ bits } (569), \text{ Expect} = 4e-63
Identities = 116/231 (50%), Positives = 167/231 (72%), Gaps = 15/231 (6%)
Query: 40 PGLKGDAGEKGDKGAPGRPGRVG---PTGEKGDMGDKGQKGSVGRHGK1GP1GSKGEKGD 96
          PG KGD GEKGD G G+ G+VG P G KG++GD G +G++G K GPIG KG+KG+
Sbjct: 46 PGPKGDDGEKGDPGEEGKHCKVGRMGPKGIKGELGDMGDRGNIG---KTGPIGKKGDKGE 102
Query: 97 SGDIGPPGPNGEPGLPCECSQLR--IGEMDNQVSQLTSELKFTKNAVAGVRETESKIYLL 154
          G +G PG G+ G C+C + R +G++D +++L + +KF+KN +AG+RETE K Y +
Sbjct: 103 KGLLGIPGEKGKAGTVCDCGRYRKFVGQLDISIARLKTSMKFVKNVIAGIRETEEKFYYI 162
Query: 155 VKEEKRYADAQ1.S-CQGRGGTLSMPKDEM-NGL--GYLAQACLARVFIGINDLEKEGAFV 210
          V+EEK Y ++ L+ C+ RGG L+MPKDE N L Y+A++G RVFIG+NDLE+EG ++
sbjct: 163 voeeknyres-lthcrirggmlampkdeaantltadyvaksgffrvfigvndleregoym 221
Query: 211 YSDHSPMRTF-NRS-GEPNNAYDEEDCVEMVASGGWNDVACHTTMYFMCEF 259
          ++D++P++ + N + GEP++ Y EDCVEM++SG WND CH TMYF+CEF
sbict: 222 FTDNTPLONYSNWNEGEPSDPYGHEDCVEMLSSGRWNDTECHLTMYFVCEF 272
🗔 >q1|37183194|qb|AAQ89397.1| 🏙 COLEC10 [Homo sapiens]
         Length - 277
Score = 239 bits (557), Expect = 1e-61
Identities = 116/231 (50%), Positives = 166/231 (71%), Gaps = 15/231 (6%)
Query: 40 PGLKGDAGEKGDKGAPGRPGRVG---PTGEKGDMGDKGQKGSVGRHCKIGPIGSKGEKGD 96
          PG KGD GEKGD G G+ G+VG P G KG++GD C +G++G K GPIG KG+KG+
Sbjct: 46 PGPKGDDGEKGDPGEEGKHGKVGRMGPKGIKGELGDMGDQGNIG---KTGPIGKKGDKGE 102
Query: 97 SGDTGPPGPNGEPGLPCECSQLR--IGEMDNQVSQLTSELKFIKNAVAGVRETESKIYLL 154
           G +G PG G+ G C+C + R +G++D +++L + +KE+KN +AG+RETE K Y +
Sbjct: 103 KGLLGIPGEKGKAGTVCDCGRYRKFVGQLDISIARLKTSMKFVKNVIAGIRETEEKFYYI 162
Ouery: 155 VKEEKRYADAQLS-CQGRGGTLSMPKDEM-NGL--GYLAQAGLARVFIGINDLEKEGAFV 210
          V+EEK Y ++ L+ C+ RGG 1.+MPKDE N L Y+A++G RVFIG+NDLE:EG ++
Sbjct: 163 VQEEKNYRES-LTHCRIRGGMLAMPKDEAANTLIADYVAKSGFFRVFIGVNDLEREGQYM 221
Query: 211 YSDHSPMRTF-NRS-GEPNNAYDEEDCVEMVASGGWNDVACHTTMYFMCEF 259
           +D++P++ + N + GEP++ Y EDCVEM++SG WND CH TMYE+CEF
Sbjct: 222 STDNTPLQNYSNWNEGEPSDPYGHEDCVEMLSSGRWNDTECHLTMYFVCEF 272
gi+26324374|dbj|BAC25941.1| unnamed protein product [Mus musculus]
         Length = 277
 Score = 234 \text{ bits } (546), \text{ Expect = } 3e-60
 Identities = 128/280 (45%), Positives = 185/280 (66%), Gaps = 36/280 (12)
Query: 1 MRGNLA--LVGVLISLAFLSLLPSGHPQPAG---D-----DACSVQILVPGLKGDAGEKG 50
          +R NL+ LV L+LL H Q G D + C+ + PG KGD GE+G
Sbjct: 8 LRSNLSMLLV-----LALL---HFQSLGLDVDSRSAAEVCATHTISPGPKGDDGERG 56
Query: 51 DKGAPGRPGRVG---PTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPPGPNG 107
          D G G+ G+VG P G KG++GD G +G++G K GPIG KG+KG+ G +G PG G
```

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Sbjct: 57 DTGEEGKDGKVGRQGPKGVKGELGDMGAQGNIG---KSGPIGKKGDKGEKGLLGIPGEKG 113
Query: 108 EPGLPCECSQLR--IGEMDNQVSQLTSELKFIKNAVAGVRETESKIYLLVKEEKRYADAQ 165
                           + G C+C | R +G++D V++L + +KFIKN +AG+RETE K Y +V+EEK Y ++
Sbjct: 114 KAGTICDCGRYRKVVGOLDISVARLKTSMKFIKNVIAGIRETEEKFYYIVQEEKNYRES- 172
Query: 166 LS-CQGRGGTLSMPKDEM-NGL--GYLAQAGLARVFIGINDLEKEGAFVYSDHSPMRTFN 221
                           L+ C+ RGG L+MPKDE+ N L Y+A++G RVFIG+NDLE+EG +V++D++P++ ++
sbjct: 173 LTHCRIRGGMI,AMPKDEVVNTLIADYVAKSGFFRVFIGVNDLEREGQYVFTDNTPLQNYS 232
Query: 222 -- RSGEPNNAYDEEDCVEMVASGGWNDVACHTTMYFMCEF 259
                               + EP++ EDCVEM++SG WND CH TMYF+CEF
sbjct: 233 NWKECEPSDPSGHEDCVEMLSSGRWNDTECHLTMYFVCEF 272
 Length = 277
  Score = 233 bits (544), Expect = 6e-60
  Identities = 127/278 (45%), Positives = 185/278 (66%), Gaps - 32/278 (11%)
Query: 1 MRGNLALVGVLISLAFLSLLPSGHPQPAG---D----DACSVQILVPGLKGDAGEKGDK 52
                          +R NL++ L L+LL H Q G D + C+ + PG KGD GE+GD
                       LRSNLSM-----LLLLALL---HFQSLGLDVDSRSAAEVCATHTISPGPKGDDGERGDT 58
Sbjct: 8
Query: 53 GAPGRPGRVG---PTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDTGPPGPNGEP 109
                           \texttt{G} \quad \texttt{G+} \quad \texttt{G+} \\ \texttt{VG} \qquad \texttt{P} \quad \texttt{G} \quad \texttt{KG+} \\ \texttt{+} \\ \texttt{G} ) \quad \texttt{G} \quad \texttt{+} \\ \texttt{G+} \\ \texttt{+} \\ \texttt{G} \quad \texttt{FG} \quad \texttt{KG+} \\ \texttt{KG+} \quad \texttt{G} \quad \texttt{FG} \quad \texttt{G+} \\ 
Sbjet: 59 GEEGKDGKVGROGPKGVKGELGDMGAOGNIG---KSGPIGKKGDKGEKGLLGIPGEKGKA 115
Query: 110 GLPCECSQLR--IGEMDNQVSQLTSKLKFIKNAVAGVRETESKIYLLVKEEKRYADAQLS 167
                           G C+C + R +G++D V++1, + +KFIKN +AG+RETE K Y +V+EEK Y ++ L+
Sbjet: 116 GTICDCGRYRKVVGQLDISVARLKTSMKFIKNVIAGIRETEEKFYYIVQEEKNYRES-LT 174
Query: 168 -CQGRGGTLSMPKDEM-NGL--GYLAQAGLARVFIGINDLEKEGAFVYSDHSPMRTFN-- 221
                              C+ RGC T,+MPKDE+ N L Y+A++G RVFIG+NDLE+EG +V++D++P++ ++
sbict: 175 HCRIRGGMLAMPKDEVVNTLTADYVAKSGFERVFLGVNDLEREGOYVFTDNTPLONYSNW 234
Query: 222 RSGEPNNAYDEEDCVEMVASGGWNDVACHTTMYFMCEF 259
                                                   EDCVEM++SG WND CH TMYF+CEF
                           + EP++
sbjct: 235 KEEEPSDPSGHEDCVEMLSSGRWNDTECHLTMYFVCEF 272
 🖺 >q1|7656989|ref|NP 056534.1| 👪 collagen, type V, alpha 3 preproprotein; pro-(alp
                              [Homo sapiens]
  qi|34223720|sp|P25940|CA35 HUMAN W Collagen alpha 3(V) chain precursor
  gi|7329074|gb|AAF59902.1| 3 collagen type V alpha 3 chain [Homo sapiens]
                        Length = 1745
  Score = 78.7 bits (178), Expect = 3e-13
  Identities = 48/92 (52.), Positives = 53/92 (57.), Gaps = 24/92 (26.)
                             VPGLKGDAGEKGDKG---APGRPGRVGPTGEKGDMGDKGOKGSVGR---HGKIGP---- 87
Query: 39
                             +PG KGD GEKGD G A G PG+ GP GE D G KGSVG
                                                                                                                                                       G +GP
Sbjct: 1221 IPGPKGDIGEKGDSGPSGAAGPPGKKGPPGE----D-GAKGSVGPTGLPGDLGPPGDPG 1274
Query: 88 ---I-GSKGEKGDSGDI---GPPGPNGEPGLP 112
                                     I GS GEKGD GD+ GPPG +GEPG P
```

Sbjct: 1275 VSGIDGSPGEKGDPGDVGGPGPPGASGEPGAP 1306

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Score = 59.6 bits (133), Expect = 2e-07
Identities = 46/117 (39%), Positives = 50/117 (42%), Gaps = 51/117 (43%)
GEKG KG PG R PGRVGP GH
sbjct: 1325 GEKGAKGEPGPDGPPGRTGPMGARGPPGRVGPEGLRGIPGPVGEPGLLGAPGQMGPPGPL 1384
Ouery: 67 -----KGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSG--DI-GPPGPNGEPGLP 112
                 KGD G KG+KG +G G IGP G GEKGD G + GPPGP G+PG P
Sbjct: 1385 GPSGLPGLKGDTGPKGEKGHIGLIGLIGPPGEAGEKGDQGLPGVQGPPGPKGDPGPP 1441
Score = 55.4 bits (123), Expect = 3e-06
Identities = 42/109 (38%), Positives = 46/109 (42.), Gaps = 48/109 (44.)
Query: 40 PGLKGD------ AGEKGD -- -----KGAPGRPGRV-- -- 61
                                 AGEKGD KG PG PG +
          PGLKGD
Sbjct: 1390 PGLKGDTGPKGEKCHICLICLICPPGEACEKGDQGLPGVQGPPGPKGDPGPPGPICSLCH 1449
Query: 62 -GPTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPPGPNGEP 109
          GP G G +G KG KGS P GS G +GD+G GPPGP G P
Sbict: 1450 PGPPGVAGPLGOKGSKGS----P-GSMGPRGDTGPAGPPGPPGAP 1489
Score = 54.9 bits (122), Expect = 4e-06
Identities - 50/129 (38%), Positives = 59/129 (45%), Gaps = 50/129 (38)
          PSGHPQPAGDDACSVQILV----PGL----KGDAGEKGDK GAPGRPGRVGPTGEK 67
          P+GHP P G D Q PGL KGD G +G G PG G GP GEK
sbjct: 1107 PAGHPGPPGADG--AQ---GRRGPPGLFGQKGDDGVRG--FVGVIGPPGLQGLPGPPGEK 1159
Query: 68
          GDMGDKGQKGSVGRHGKIGP--------IGSKGEKGDSGDIGPP 103
          G++GD G S+G HG GP +G KGE+GD+GD P
Sbjct: 1160 GEVGDVG---SMGPHGAPGPRGPQGPTGSEGTPGLPGGVGQPGAVGEKGERGDAGD---P 1213
Query: 104 GPNGEPGLP 112
          GP G PG+P
Sbjct: 1214 GPPGAPGIP 1222
Score = 53.7 bits (119), Expect = 1e-05
Tdentities = 41/92 (44), Positives = 46/92 (50), Gaps = 28/92 (30)
Query: 44 GDAGEKGDK-----GAPGRPGR-----VGPTGEKGDMGDKGQKGSVG RHGKIG 86
         G AGEKG K G PGRPG +GP GEKG G GQ G G R G
Sbjct: 779 GSAGEKG-KLGVPGLPGYPGRPGPKGSIGFPGPLGPIGEKGKSGKTGQPGLEGER----G 833
Query: 87 PIGSKGEKGDSGDIGPPGPNGE----PGLP 112
         P GS+GE+G G G PGP G+ PG+P
Sbjct: 834 PPGSRGERGQPGATGQPGPKGDVGQDGAPGIP 865
```

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Score = 53.2 bits (118), Expect = 1e-05
Identities = 35/79 (44%), Positives = 39/79 (49%), Gaps = 27/79 (34%)
Query: 40 PGLKGDAGEKGDKGAPGRPGRVGPTGEKGDMGDKCQKGSVGRHGKIGPIGSKGEKGDSGD 99
PG KGD G KGD+G PG P GE D GP G KG+ G +G+
Sbjct: 736 PGFKGDVGLKGDQGKPGAPG---PRGE-----D------------GPEGPKGQAGQAGE 774
Query: 100 IGPPGPNGE----PGLP 112
          GPPG GE PGLP
Sbjct: 775 EGPPGSAGEKGKLGVPGLP 793
Score = 50.3 bits (111), Expect = 1e-04
Identities = 43/104 (41s), Positives = 50/104 (48s), Gaps = 36/104 (34s)
PGLKG+ G +G +G P G PGRVG P TG KGD G
sbjct: 499 PGLKGEEGAEGPQGPRGLQGPHGPPGRVGKMGRPGADGARGLPGDTGPKGDRGFDGLPGL 558
Query: 72 --DKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPPGPN---GEPG 110
           +KGQ+G G+ GP GE G+ G GPPGP
Sbjct: 559 PGEKGQRGDFGHVGQPGP---PGEDGERGAEGPPGPTGQAGEPG 599
Score = 49.4 bits (109), Expect = 2e-04
Identities = 39/94 (41%), Positives = 50/94 (53%), Gaps = 26/94 (27%)
          PGLKGDAGE-----KGDKGAPGRPGRVGPTG-----EKGDMGDKGQKGSVGRHG 83
           PG KGD G+ G+ GAPG PG+ GP+G E G+ G KG+ G G
sbjct: 1282 PGEKGDPGDVGGPGPPGASGEPGAPGPPGKRGPSGHMGREGRE-GEKGAKGEPGPDGPPG 1340
          KIGPIGSKGHKGDSGDIGP-----PGPNGEPGL 111
          + GP+G++G G +GP PGP GEPGL
Sbjct: 1341 RTGPMGARGP --- PGRVGPEGLRGIPGPVGEPGL 1371
Score = 47.7 bits (105), Expect = 7e-04
Identities = 31/63 (49°), Positives = 33/63 (52°), Gaps = 18/63 (28°)
Query: 56 GRPGRVGPTGEKGDMGDKGQKGSVGRHGKIGPIGSKGEKGDSGDIGPP-----GPNGEP 109
          G PG GP+GE+GD GD VG P G KG KGD GH GPP GP G P
Sbjct: 1064 GPPGAAGPSGEEGDKGD-----VG----AP-GHKGSKGDKGDAGPPGQPGIRGPAGHP 1111
Query: 110 GLP 112
          G P
Sbjct: 1112 GPP 1114
Score = 46.0 bits (101), Expect = 0.002
Identities = 44/127 (34%), Positives = 54/127 (42), Gaps = 58/127 (45%)
Query: 40 PGLKGDAGE-----KGDKGAPG-----R-----PGR-----VGPTGE 66
          PG KG G+ KGDKG PG R PG+ VGP G+
Sbict: 979 PGPKGGPGDPGPTGLKGDKGPPGPVGANGSPGERGPLGPAGGIGLPGOSGSEGPVGPAGK 1038
Query: 67 KGDMGDKGQKGSVGRHGKI-GP1G-----SKGEKGDSGDIGPP----- 103
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